

REMARKS

Claims 287-307 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Glazer et al. (US 5,646,264) in view of Lee et al. (US 5,945,526). The Examiner states the following:

Glazer discloses in Figure 4 the synthesis a heterodimeric dye composition comprising a first dye that comprises a phenanthridinium moiety and a second dye that is different from the first dye. The linker that links both dyes can comprise bromine or chlorine counter-ion.

Glazer does not show that the attachment is through the phenyl ring.

Lee et al. disclose heterodimeric dye where the attachment is through a phenyl ring in ortho, meta or para position. See col. 6, Tables 1-5.

Therefore it would have been obvious at the time the invention was made to synthesis heterodimeric dyes as taught by Glazer comprising an attachment via the phenyl ring as shown by Lee. The motivation is that the attachment is provided on a ring that is less steric and also viewed as an electrophilic moiety and more reactive toward nucleophilic moiety. It is well known in the art of organic chemistry that a phenyl ring comprising an electron withdrawing moiety such as the phenanthridinium moiety will be more reactive toward nucleophilic group and therefore can be substituted in ortho, meta or para position.

Applicants argue that the references do not feature the position of the linkage to the second dye through the phenyl ring of the phenanthridinium moiety because there is no motivation in the art. Additionally applicants mentioned unexpected results which are not disclosed in the instant specification.

“the unexpected results we obtained from the creation of a homodimeric compound resulted in an appreciation that this could also be applied to a heterodimeric compound. Only applicants had

access to the unexpected results – they were not in the prior art. And these same unexpected results provided the motivation to create a heterodimeric dye composition using a phenyl group, which is the present invention”.

Pursuant to a telephone conversation with Examiner Riley on September 11, 2007, Applicants clarified the misunderstanding regarding the “unexpected results”. Applicants explained that the unexpected results (with a homodimer linked through the phenyl groups as compared to commercially available homodimers that were provided in the specification) (Example 7, and Figures 10 and 11) provided the motivation to create the heterodimeric compound. In summary, the unexpected homodimer results provided Applicants with the impetus to create the heterodimer. As such, support for the unexpected results is found in the specification. In this connection, Applicants respectfully request withdrawal of the finality of the May 14, 2007 Office Action.

SUMMARY

In view of the foregoing remarks, Applicants respectfully request reconsideration and withdrawal of the sole rejection of record of claims 287-307. Therefore, claims 287-307 are presented for further examination.

Early and favorable action is respectfully requested.

No other fee or fees are believed due in connection with this paper. In the event that any fee or fees are due, however, the United States Patent and Trademark Office is hereby authorized to charge any such fee or fees to Deposit Account No. 05-1135, or to credit any overpayment thereto.

If a telephone conversation would further the prosecution of the present application, Applicants' undersigned attorney requests that she be contacted at the number provided below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Natalie Bogdanos", written in a cursive style.

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